

Ayush Agnihotri

<https://mrayush.in>

Cyber Security Analyst | Offensive Security Enthusiast | Cryptography · PKI

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EDUCATION

Pranveer Singh Institute of Technology (PSIT)

- Bachelor of Technology in Computer Science ; CGPA: 7.45
(Artificial Intelligence & Machine Learning)

Kanpur, India

Sep. 2021 – Jul. 2025

EXPERIENCE

Tata Consultancy Services

- Cyber Security Analyst

Developed Standard Operating Procedures (SOPs) for firewall and WAF use cases covering inbound/outbound traffic analysis, historical log review, and anti-APT traffic identification.
Created security playbooks for antivirus (AV) alerts aligned with MITRE ATT&CK framework mappings, streamlining incident triage and response workflows.

New Delhi, India

Nov 2025 - Present

PROJECTS

- 🔒 **DRM - Cryptographic Protection** | *Cryptography, Python* Sept 2024 – April 2025
 - Designed a Digital Rights Management (DRM) architecture implementing robust encryption standards to prevent unauthorized media reproduction, mimicking industry standards like Widevine.
 - Developed a custom Key Exchange mechanism to ensure secure delivery of decryption keys only to authenticated clients, mitigating Man-in-the-Middle (MitM) attacks.
- 🚗 **Drive Now - Secure Cloud Storage** | *Django, AWS S3, Security Middleware* Dec 2023 – Feb 2024
 - 🔗 **Demo Url:** <https://drivenow.mrayush.in>
 - Architected a secure file storage solution using AWS S3 with strict Bucket Policies to prevent public access misconfigurations and data leaks.
 - Designed Role-Based Access Control (RBAC) and enforced CSRF/XSS protections via Django's security middleware, adhering to the principle of least privilege.
- 💧 **Dropr - Secure Temp Mail Service** | *Python, Security Libraries* Jul 2023 – Aug 2023
 - 🔗 **Demo Url:** <https://dropr.mrayush.me>
 - Built an ephemeral email service with automated data purge policies and Python input sanitization to defend against Email Injection and SQL Injection vectors.
 - Integrated secure session management to handle temporary user identities without compromising server stability.

SKILLS

- **Languages:** Python, C++, C, JavaScript, GO, Bash
- **Frameworks & Tools:** Django, Flask, Docker, Git, AWS
- **Databases:** MySQL, PostgreSQL, MongoDB
- **Security:** Cryptography, PKI/TLS, RBAC, OWASP, Injection Defense, DRM

PUBLICATIONS

- **Smart Contracts and Decentralized Applications** | *Book Chapter, 2025*
 - Agnihotri A., Pandey A., Verma R., Dhanda N. - In: *The Confluence of Cryptography, Blockchain and Artificial Intelligence*. CRC Press, Mar. 2025.
 - DOI: 10.1201/9781032711515-8 | ISBN: 9781032711515

ACHIEVEMENTS

- **Among the top 2 highest rated coders in the college**
 - Codechef (**qwerty050703**) - Max Rating 2007 (5 star) | LeetCode (**ayushagnihotri**) - Rating 1577 (Top 25.26%)
- **Google Hashcode**
 - Accomplished an **AIR 195** and a **Global Rank of 1024** by solving an engineering problem in **Google Hash Code 2022**.
- **Google Kickstart**
 - Accomplished Global rank of **2564** in **Google Kickstart Round B 2022**.
- **Google CodeJam**
 - Attained **AIR 277** and a **Global Rank of 1778** in **Google CodeJam 2022 Round 1B**.
- **IEEE Xtreme**
 - Accomplished an **AIR 66** and a **Global Rank of 550** in **IEEE Xtreme 16.0**.

Last Updated on July 7, 2026